# 4<sup>th</sup> U.S.-China Energy Efficiency Forum September 25, 2013

Compiled Presentations from Track 3, Breakout Session 2/Afternoon

**Energy Efficiency Financing and Energy Management Companies** 

## **DrinkerBiddle**

### **About Drinker Biddle:**



- 650 Lawyers
- Founded in 1849
- Largest offices Philadelphia and Chicago
- Ranked by Chambers USA in 41 practice areas, including corporate, litigation, investment management, real estate, and intellectual property
- Ranked as a leader in BTI Consulting Group's Survey of Client Service Performance for Law Firms: The BTI Client Service A-Team for the last four years

#### **Key National Practice Groups:**

Corporate & Securities

- Private Equity
- Corporate Finance
- Capital Markets

Litigation

**Corporate Restructuring** 

Tax

Health Care

**Employee Benefits & Executive Compensation** 

**Environment & Energy** 

**Intellectual Property** 

**Investment Management** 

Real Estate

## Drinker Energy Efficiency Finance

- Delaware Sustainable Energy Utility \$70 Million Pooled Bond Financing for Energy Efficiency Improvements for State Agencies and Schools
- District of Columbia Commercial Property Assessed Clean Energy Program – Energy Efficiency Improvements for District of Columbia Commercial Property
- Campus Energy Efficiency Fund Energy Efficiency Improvements on the Drexel University Campus
- Clean Economy Development Center Pooled Origination and Finance of Deep Energy Efficiency Retrofits
- Red Clay Consolidated School District Energy Efficiency Improvements for all District School Buildings
- FREE / Sonoma County, CA Pooled Energy and Water efficiency Financing

# Industrial Energy Efficiency Finance in China: Best Practices Present and Future

Patrick D'Addario, President, Fiorello H. LaGuardia Foundation 4<sup>th</sup> US-China Energy Efficiency Forum

September 25, 2013



# DIRECTOR-GENERAL, UNITED NATIONS RELIEF AND REHABILITATION AGENCY (UNRRA), 1946





# The Chinese government's industrial EE incentives\*

#### Energy Savings Awards in 11<sup>th</sup> and 12<sup>th</sup> FYP plans for large and medium enterprises, and ESCOs

Description	11 <sup>th</sup> FYP – CNY (US\$)	12 <sup>th</sup> FYP CNY (US\$)	New policy for ESCOs (2010) CNY (US\$)
Reward CNY/tce (USD/tce)	200-250 (32.4 -40.5)	240-300 (38.9-40.6)	240 (38.9) from central govt. >60 (9.7) from local govt.
Targeted energy savings (tce) >10,000		>10,000	500-10,000
Minimum energy consumption (tce)	Not applicable	20,000	Not applicable

#### Other support

Ten key energy projects
Eliminating outdated capacity
Energy savings projects
ESCOs

0 income tax for years 1-3; 50% for years 4-6, on income from qualifying projects VAT reduction

"Addressing the effectiveness of industrial energy efficiency incentives in overcoming investment barriers in China." J.Romankiewicz, et al., ECEEE, 2012.



## The Chinese government's industrial EE incentives,\* continued

	2006	2010	2011
ESCO companies	89	782	1,472
ESCO project investment – CNY (USD) billion	1.3 (0.21)	28.8 (4.7)	41.2 (6.7)
ESCO project energy savings per year (Mtce)	0.9	10.6	16.5
Total number of employees in energy efficiency service industry	16,000	175,000	378,000
Total value of energy efficiency service industry – CNY (USD) billion	4.7 (0.8)	83.6 (13.5)	125.0 (20.2)

The Ministry of Finance's paid out CNY133 billion (US\$21.5 billion) in incentive payments in the 11th FYP. The Climate Policy Initiative (CPI) at Tsinghua University reported additional funding from central and local governments for energy efficiency of CNY126 billion (US\$20.4 billion).\*

In comparison, according to ACEEE's Chittum and Nowak, in 2010, a total of US\$879 million was spent on industrial energy efficiency by utilities (US\$737 million), state agencies and public universities (US\$74 million), nonprofit organizations (US\$39 million), and the Federal Government (US\$29 million).

"Addressing the effectiveness of industrial energy efficiency incentives in overcoming investment barriers in China." J.Romankiewicz, et al., ECEEE, 2012.



## **BEST PRACTICES - PRESENT**

#### **ESCO FINANCE**

- Using project cash flow as principal collateral
  - Accounts Receivable from previous ESCO projects factoring Repayments based on cash flow; construction grace period
- 3<sup>rd</sup> party qualified organizations evaluate and verify energy savings
- Leasing
- Energy Savings Accounts



## BEST PRACTICES – FUTURE?

## **Energy Efficiency Add-ons for Large Customer Loans** 大客户能效贷款

#### **Industrial Borrower** 工业借贷者

Bank 银行

**Investment Project** 投资项目

与CEO/CFO 会晤.

Meeting with CEO/CFO **Include EE Project Components** 包括能效项目 构成要素

**Initial Loan Application: ¥X** 最初贷款申请:¥X

**Energy Efficiency (EE) Investment Options: ¥Y** 

能效投资选择: ¥ Y

Final Loan = Y (X+Y) 最终贷款= ¥ (X+Y)

Preliminary Evaluation by EE Engineer 能效工程师进行初评 **Enter EE Rating into Database** 将能效评分输入数据库 Coordination w/Banker 与银行协调

Package Loan ¥ (X+Y) 组合贷款 ¥ (X+Y)



# **Energy Efficiency in the US and China**

Dr. Ming Yang
Senior Climate Change Specialist
Global Environment Facility
Washington, D.C.
September 25, 2013

# **Outline**

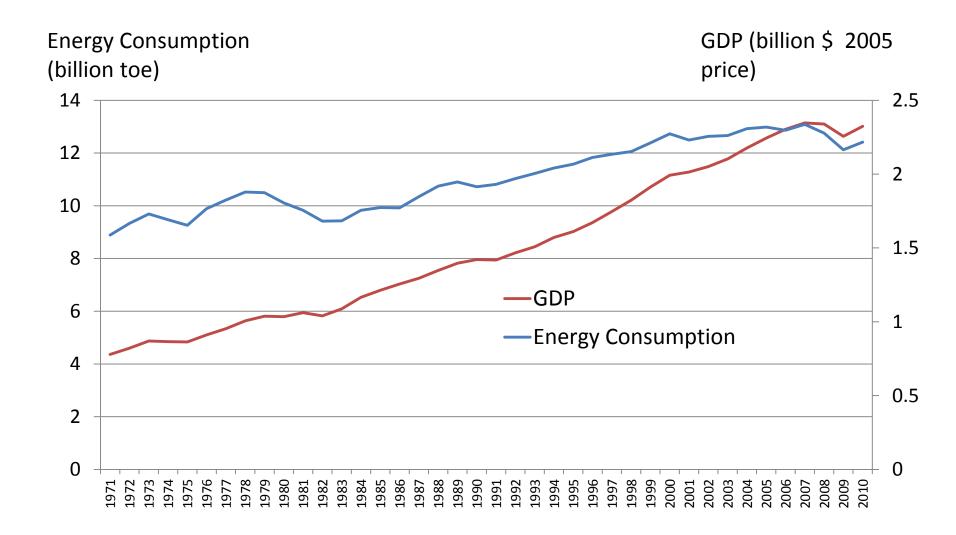


**US Energy and Energy Efficiency** 

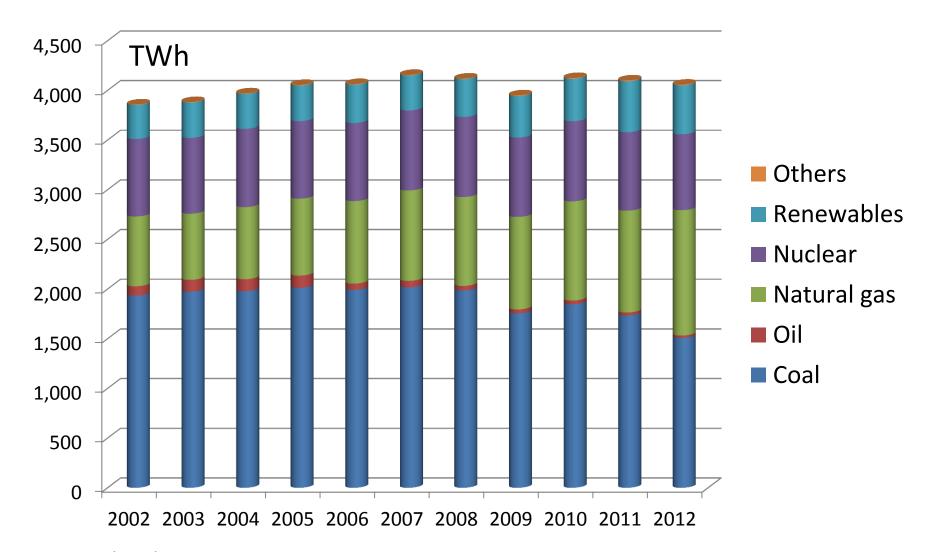
Energy Efficiency Improvement in China

US Assists China in Energy
 Efficiency through the GEF

## **US Energy Consumption and GDP Growth**



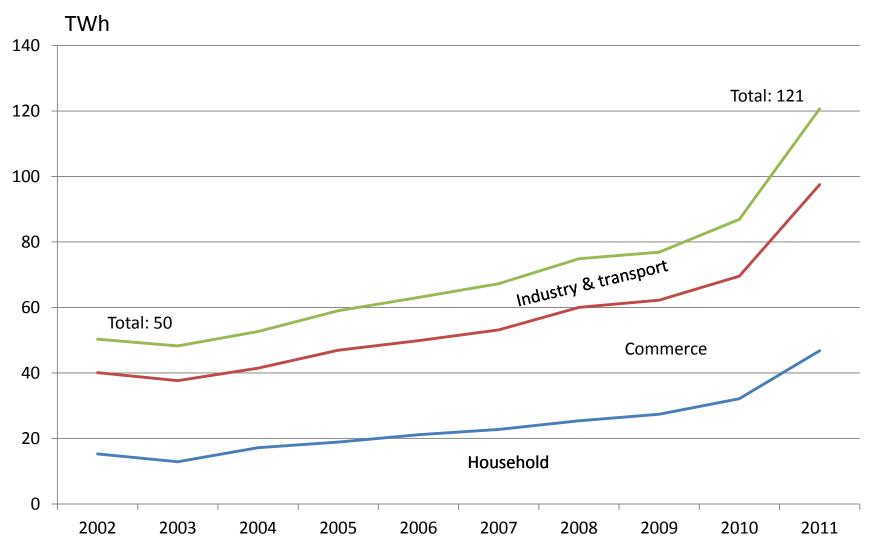
# **US Electricity Demand**



*Source: EIA (2013)* 

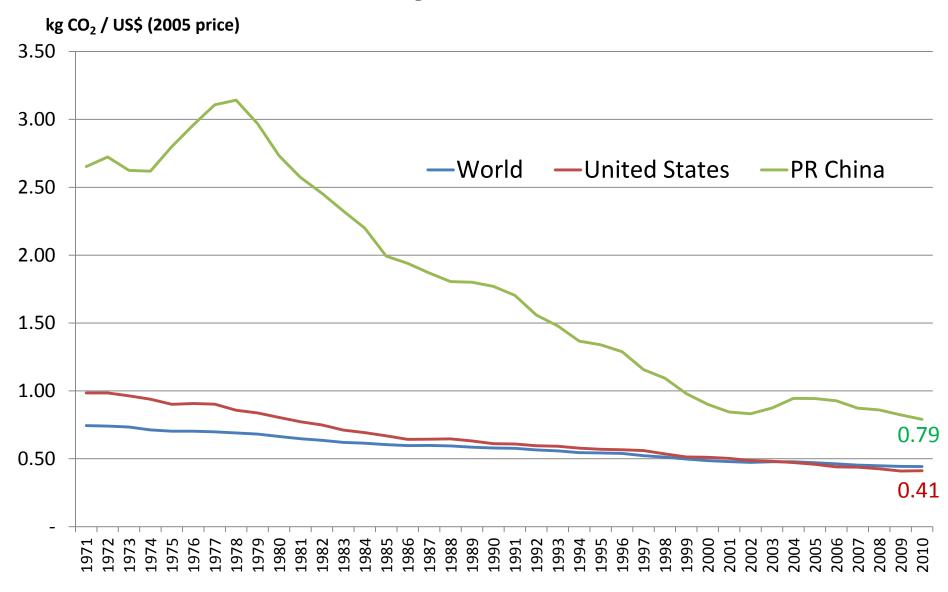


# **Electricity Savings from US DSM Programs**



Source: EIA (2013)

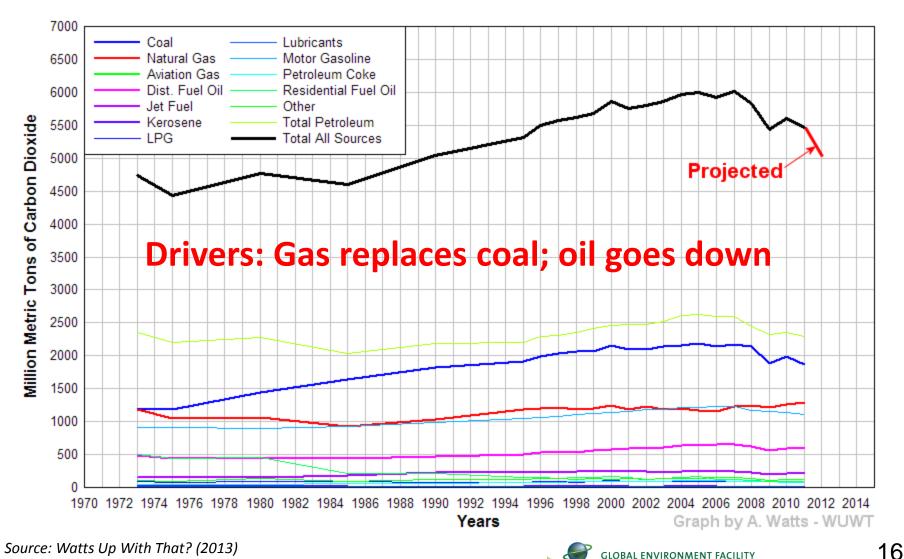
# **Carbon Intensity in the US and China**



Source: IEA (2012)



# **US CO<sub>2</sub> Emissions Declining**



# **Outline**

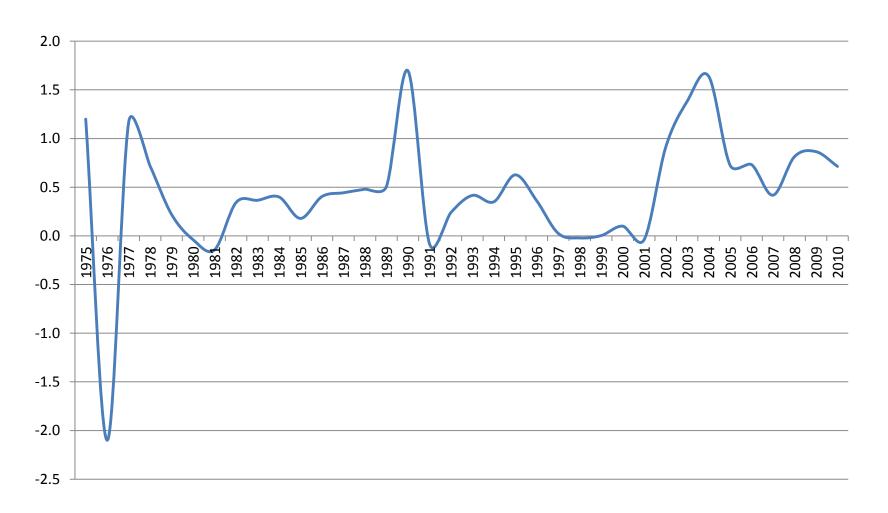


**US Energy and Energy Efficiency** 

Energy Efficiency Improvement in China

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# China's Elasticity of Energy Growth Rate to GDP Growth Rate



# **GEF/WB Energy Efficient Boilers Project in China** (1995-2004)

- 1) GEF financing: US\$ 31.9 million
- 2) Co-financing: US\$ 212.1 million
- 3) GHG emission mitigation: 160 million tCO<sub>2</sub>e
- 4) Technology transfer: 9 patents
- 5) Sales of GEF-supported boilers: 9,230 tons/hr



## **China Utility-Based Energy Efficiency Finance Program (CHUEE)**

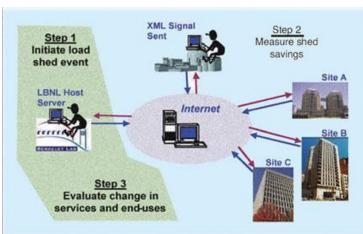
- 2006, \$16.9 Mn GEF grant,
   \$200 Mn IFC loan for EE marketing, development and financing services
- 2012, leveraged \$800 Mn local bank loans for 170 plus EE/RE projects
- Now, mitigates over 19 million tCO<sub>2</sub>/Yr, = total annual emissions of Mongolia





## **GEF/ADB Hebei EE Improvement and Emission Reduction**

- To enhance Hebei to implement EE
- GEF Grant: \$3.6 Mn, Co-financing: \$182
   Mn
- To reduce 54 million tCO<sub>2</sub>e
- Main tasks:
  - Disseminate innovative industrial EE technologies
  - Build capacity for third party M&V agencies and ESCOs
  - Demonstrate demand response and smart grid technologies
  - Establish dedicated credit line for financing demonstration projects.

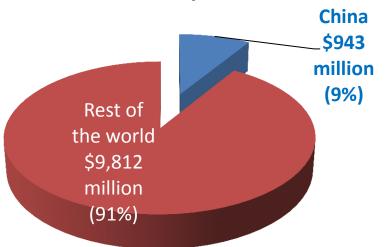




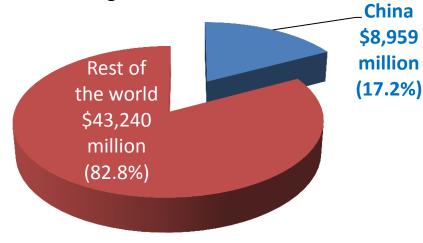
# **GEF Supports China**

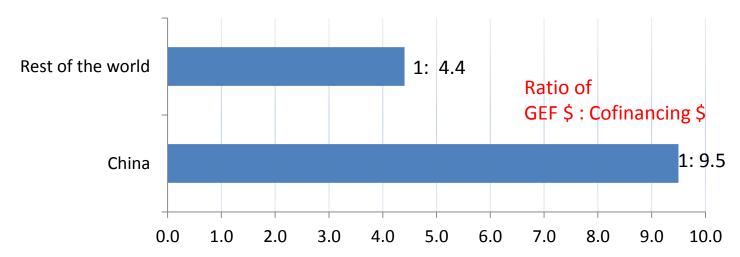
October 1991 – July 2012





#### **Cofinancing mobilized in China and others**





# **Outline**



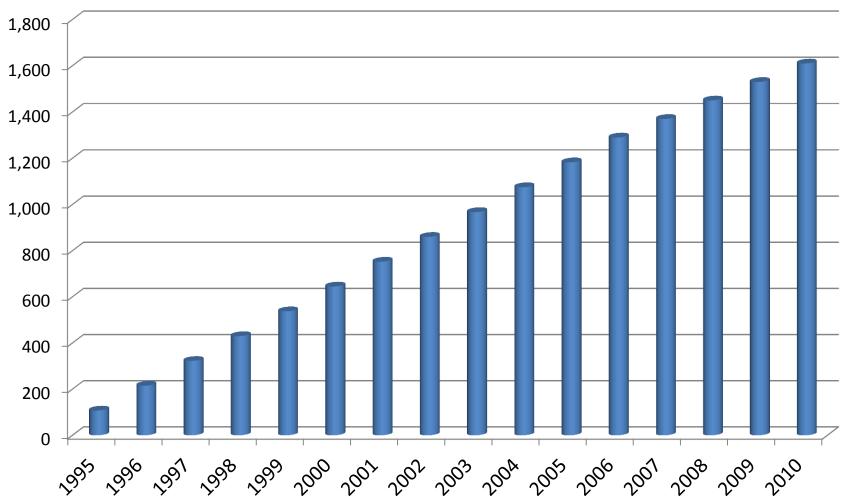
**US Energy and Energy Efficiency** 

Energy Efficiency Improvement in China

US Assists China in Energy
 Efficiency through the GEF

# Accumulated US contributions to the GEF: US\$1.7 billion (17% of total GEF Funds)

### **US\$ Million**



## Conclusion

 EE improvement contributed GHG reduction in the US and China



## **GLOBAL ENVIRONMENT FACILITY**

INVESTING IN OUR PLANET

www.theGEF.org



# **THANK YOU!**

myang@thegef.org

Website: www.TheGEF.org



## 4TH U.S.-CHINA ENERGY EFFICIENCY FORUM

SERVICE FOR ENERGY PERFORMANCE CONTRACTING
BY FINANCING LEASING
September 25, 2013



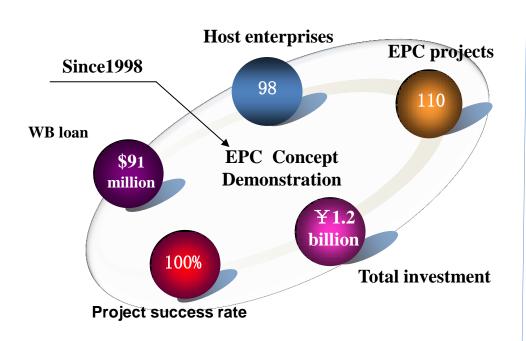
#### **Brief Introduction**

Shandong Rongshihua Leasing Company, is one of the three pilot companies, located in Shandong, China and founded in 1996, to carry out "the World Bank/GEF China Energy Conservation Promotion Project", which introduced, demonstrated and implemented Energy Performance Contracting (EPC) in China at the earliest.



#### **Brief Introduction**

In the past 15 years, Rongshihua has achieved great success in EPC demonstration and implementation through the support of the World Bank and the Chinese Government.







#### **Brief Introduction**

In the beginning of 2007, based on the achievements and experiences of EPC implementation, Rongshihua, as one of "pilot enterprises to operate leasing", was permitted to engage in financing lease by Ministry of Commerce of China. In China, it is easier for leasing companies to finance because of the business model and policy rules.

Since 2011, Rongshihua has carried out another energy efficiency project, "Shandong Provincial Government/the World Bank— Shandong Energy Efficiency Project", which is to supply the equipment leasing service for the energy conservation reformation in the small and medium-sized enterprises in China with the WB loan of 64 million USD and equal domestic funds.



Chinese government issued a notice on energy saving industry to encourage the development of energy conservation service industry in 2010, which has promoted the growth of ESCOs in China greatly.

By now and future, ESCOs are facing a huge market potentials because of the challenge of energy saving and CO<sub>2</sub> emission reduction in China.

The energy saving market grows quickly. New ESCOs emerge greatly and foreign companies actively engage in energy saving services.

The tax of ESCOs are very preferential.

Banks pay more attention to ESCOs and create some products suit for EPC projects

## 3

#### **Financing Condition of Chinese ESCOs**

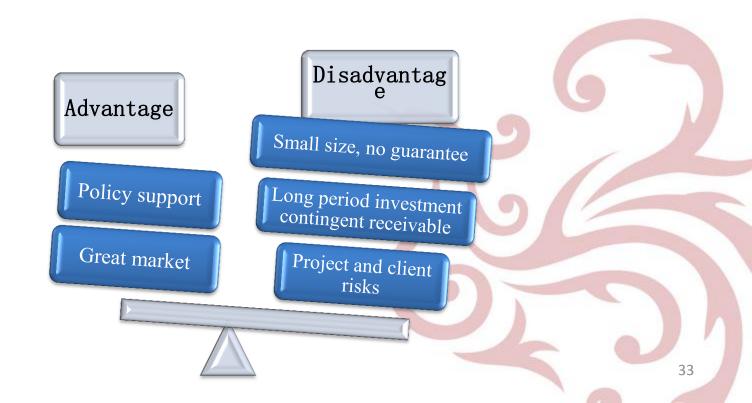
In general, the financing channels for small and medium-sized ESCOs are few in China, so the most ESCOs are facing the financing problem, which limits the development of energy saving service industry in China.

Most ESCOs are small and lack of sustainable development capacity.

EPC's features, such as contingent receivable, bring some negative factors to ESCOs financing

The banks require higher loan conditions for risk control and supply few of suitable products for energy saving services

Although, the energy saving service industry are facing the dual good factors in policy and market, there are many problems to limit the development of ESCOs in China, of which financing is the first one.



Under the support of the government policy, the financing condition of ESCOs is improving for the recent years. Their financing are mainly the loans, venture investment, capital financing and financial leasing. The financing leasing may be the simple and feasible way.

Enterprises can obtain energy-efficient equipment through a leasing arrangement. In financial leasing, the lessor provides the lessee with equipment to improve energy efficiency and allows the lessee to use such equipment by paying fixed installments. The lessor still retains the rights and ownership of the equipment before the end of the leasing contract.



Channel	Degree	Features
Financial Leasing	Financing trend, widely used more and	Simple, flexible, less cooperation problems
Bank Loan	Main financing source, can't be replaced in the future	Banks are accepting EPC model, but more requirements are needed that most ESCOs can't meet with, and the bank loan period can't match the EPC project payback period.
Venture Investment	Not easy to be used and developed	Less chances, higher requirements, and complex programme
Capital Financing	Not easy to be used and developed	Higher requirements and financing cost, but has some successful cases.

### **Leasing for Energy-efficiency Equipment**

Currently, it estimated that there are about 280 ESCOs in Shandong with only about 60 companies operating as real ESCOs for the lack of capital. For resolving the problems of ESCO financing, Rongshihua combines the financial leasing with EPC. It provides smaller or growing ESCOs and/or client of ESCOs with energy efficiency equipment lease financing. The support to small ESCOs will promote the development of energy conservation service industry in Shandong.



#### **Leasing for Energy-efficiency Equipment**

There are tow models under the leasing for energy-efficiency equipment.

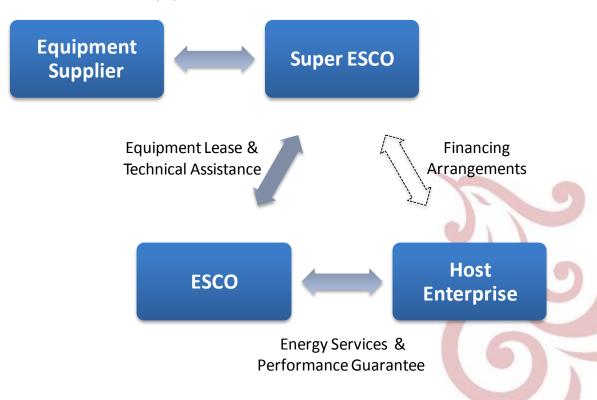
(I) The normal financial leasing model: Rongshihua buy a new equipment according to the requirement of lessee and provides the lessee with equipment to improve energy efficiency and allows the lessee to use such equipment by paying fixed installments. Rongshihua still retains the rights and ownership of the equipment before the end of the leasing contract.



#### **Leasing for Energy-efficiency Equipment**

(II) An ESCO submits a project application for assistance to Rongshihua. Rongshihua checks the creditworthiness, business, and financial track record of both the ESCO and its client. After the approval of Rongshihua's project review group, Rongshihua signs the equipment leasing contract with the ESCO and leases the equipment at a rate slightly higher than the financing cost of Rongshihua. The ESCO provides guarantee by pledging the account receivables of energy conservation project.

#### **Equipment Purchase**



#### **Beneficial for ESCOs**

Increasing the financing capacity

Continuing investment and development in larger scale

EPC + Leasing

Rent income from shared savings

Focusing on EPC projects without financing difficulty

Developing quickly and steadily for the more projects



## Thanks!









### Bringing Energy Efficiency Finance to Scale

U.S. Experience with Possible Application to China

能效融资规模化

可供中国参考的美国经验

John Byrne Foundation for Renewable Energy & Environment

可再生能源&环境基金会

September 25, 2013 2013年9月25日











The White House

Office of the Press Secretary

**For Immediate Release** 

December 02, 2011

White House press release on the President's *Better Buildings Challenge recognizes* the Delaware & Washington DC SEUs for accomplishments meriting national attention.

据白宫发布的总统"提高建筑能效挑战计划"报告,特拉华州和华盛顿特区可持续能源公用事业公司模型(SEU Model)取得的成绩在总统的报告中获得关注



Asia-Pacific Dialogue on Clean Energy Governance, Policy, and Regulation

Collaborating Partners



















#### Communiqué

Special Roundtable to Develop a Regional
Plan of Action for Clean Energy Governance, Policy, and Regulation

June 24, 2011 ADB Headquarters, Manila

At the 6<sup>th</sup> Clean Energy Summit in Manila (2011), the Asian Development Bank recommended the SEU Model to the region's policy-makers.

在马尼拉举行的第六届清洁能源峰会(2011)上,亚洲开发银行将可持续能源公用事业公司模型(SEU Model)推荐给亚洲地区的决策者









# Barriers to Success 成功的障碍

Fragmented Decision Making

决策碎片化

Answer: Create a program dedicated to sustainable energy problem-solving (24/7)

解决方案:设立专门机构致力于解决能源效益问题(24/7)

Scale of Investment is Too Small 投资规模过小

Answer: Create an institution able to pool project investments into cost-efficient financing scales

解决方案:设立机构将项目打包成为符合成本效益的及规模化的投资组合

No Trusted Advisor

缺乏值得信赖的顾问

Answer: Create an institution that can provide independent, objective performance-based monitoring and evaluation of investments

解决方案: 设立机构提供对投资进行独立、公正的绩效监控和评估



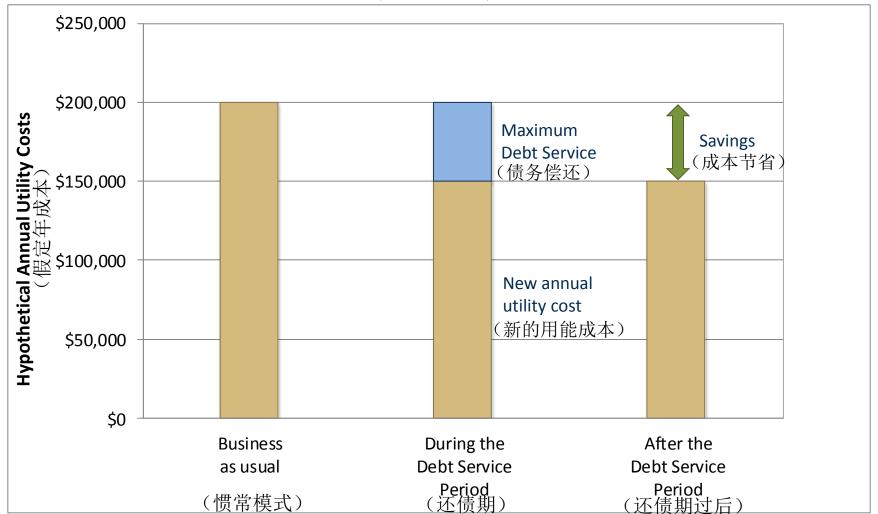






### **Guaranteed Savings as Security**

## 承诺回报





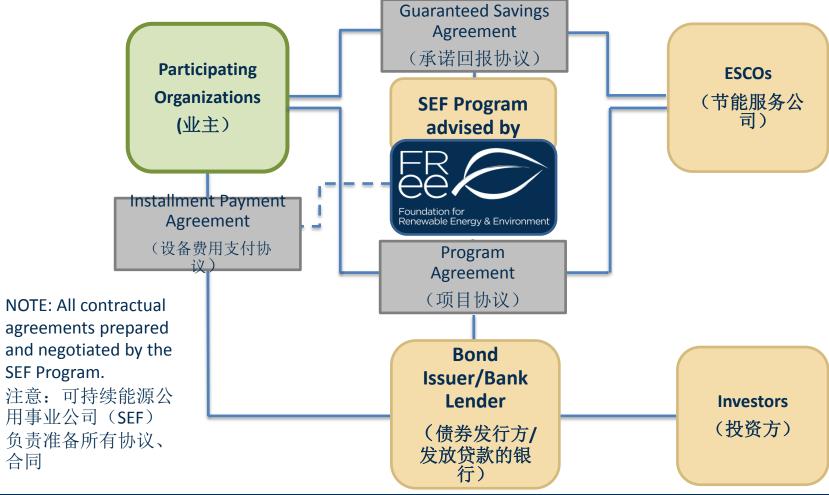






# Illustration of Sustainable Energy Financing (SEF) for a Pool of Buildings

可持续能源建筑能效项目组合融资示意图











### LARGE SCALE SUSTAINABLE ENERGY FINANCING

可持续能源公用事业公司大型融资项目



特拉华可持续能源公用事业公司 http://www.energizedelaware.org/



Sonoma County, California SCEF Program

<u>加州Sonoma县能效融资项目(SCEF)</u> http://www.scwa.ca.gov/scef/









# SNAPSHOT OF THE DELAWARE SUSTAINABLE ENERGY BOND SERIES 特拉华可持续能源债券纵览

TRANSACTION: TAX-EXEMPT BOND SOLD ON AUGUST 1, 2011 AA+ by S&P

PAR VALUE = \$67.45 MILLION WITH PREMIUMS = \$72.55 MILLION

SERIAL BONDS: maturities from 1 year (borrowing rate = 0.65%) to 20 years (rate = 4.37%)

EFFECTIVE BORROWING RATE = 3.7% AVERAGE SIMPLE PAYBACK PERIOD: ~ 14 yrs

交易: 免税债券 售于: 2011年8月1日 标准普尔债券信用评级: AA+

发行面值: 6745万美元 发行总额(加上溢价额): 7255万美元

分期偿还: 期限从1年(利率=0.65%)到20年(利率=4.37%)

有效利率=3.7% 平均回收期:约为14年

#### SIX STATE PARTICIPANTS

Department of Children, Youth and Their Families

**Department of Correction** 

Department of Natural Resources and Environmental Control

Legislative Hall, State of Delaware

**State Courthouse** 

6个参与部门

儿童、青少年及家庭局

惩教局

自然资源和环境控制局 & Carvel办公大楼

特拉华州立法院

州法院

#### **BOND PROCEEDS (incl. Premium)**

\$ 1.667 million

\$39.699 million

\$ 6.205 million

\$ 5.199 million

\$ 1.012 million

债券融资额(含溢价额)

166.7万美元

3969.9万美元

620.5万美元

519.9万美元

101.2万美元









# SNAPSHOT OF THE DELAWARE SUSTAINABLE ENERGY BOND SERIES 特拉华可持续能源债券纵览

TWO HIGHER EDUCATION INSTITUTIONS

Delaware State University \$12.108 million

Delaware Technical and Community College (3 campuses) \$ 6.661 million

2所高等教育机构

特拉华州立大学 **1210.8**万美元 特拉华技术社区学院(**3**个校区) **666.1**万美元

Contracting Companies: Ameresco, Honeywell, Johnson Controls, Noresco, Pepco Energy Services, Trane

MAJOR BUYERS: Definitive Capital, Lord Abbott, First New York Securities, Merrill Lynch

承包公司: Ameresco 公司,霍尼韦尔(Honeywell),江森自控(Johnson Controls),Noresco 公司,Pepco 能源服务公司,特灵公司(Trane)

债券主要买家: Definitive Capital 公司,诺德安博特公司(Lord Abbott),第一纽约证券公司(First New York Securities),美林证券(Merrill Lynch)



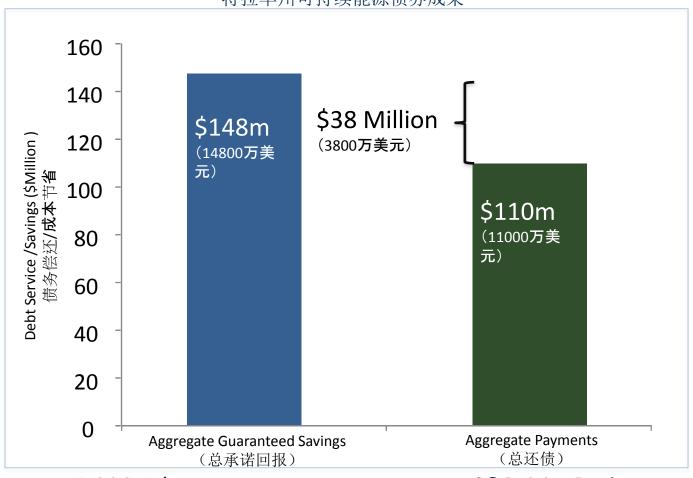






# SCALING UP NEGAWATT INVESTMENTS The Delaware Sustainable Energy Bond Results

能源投资规模的扩大 特拉华州可持续能源债券成果



~ **1,000 Jobs** 约等于1000个工作机会

S&P AA+ Rating 标准普尔债券信用评级:AA+









# SNAPSHOT OF THE SONOMA COUNTY (CALIFORNIA) EFFICIENCY FINANCING PROGRAM 加州SONOMA县能效融资项目纵览

Created in partnership with the *Foundation for Renewable Energy and Environment* (*FREE*), the SCEF Program is a tool to arrange low-cost financing for:

加州Sonoma县能效融资项目(SCEF)与可再生能源&环境基金会(FREE)建立了伙伴关系,致力于为以下区域提供低成本融资:

- School districts (including nearly 30 school buildings)
- Municipalities (improved buildings & water services in 2 cities)
- Municipal lighting (an outdoor lighting district & a state fair)
- Hospitals (a public hospital's acquisition of a fuel cell)

Anticipated financing: \$20-25 million in 2013

NO government or ratepayer subsidy

- •学区(近30所校舍)
- •市政府(提高2个市区的建筑和供水服务)
- •城市照明(户外照明)
- •医院(公立医院收购燃料电池)

预期融资: \$2000-2500万美元(2013)

无政府或纳税人支付任何费用

**FREE** & **SCWA** have assembled an expert team of energy and water engineers, financial advisors, legal counsel and M&V specialists with the goal of getting the best results for a diverse portfolio of technologies & participants.

可再生能源&环境基金会(FREE)和Sonoma县水利局(SCWA)已经组建了一个专家小组,其中包括能源和水资源工程师,财务顾问,法律顾问及M&V 专家。该小组帮助项目参与者获得最好结果。



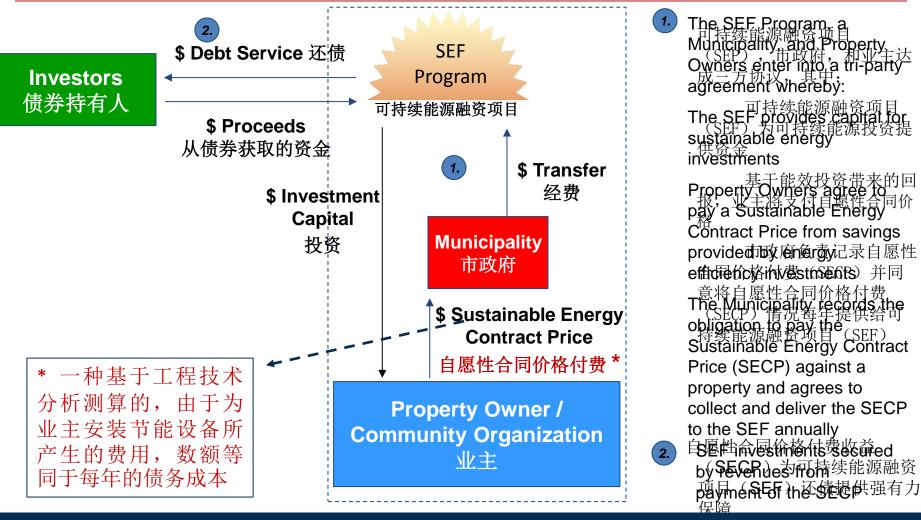






#### Sustainable Energy Financing for the Private Sector 私营部门可持续能源融资模式

Sustainable Energy Contract Financing provides a strong mechanism for payment of sustainable energy investments 基于自愿性合同价格的可持续能源融资为可持续能源投资提供强有力的保障











### SUSTAINABLE ENERGY FINANCING (SEF)

### 可持续能源融资

- AMONG THE BEST & FASTEST MEANS TO CREATE JOBS
  - 4x more jobs per million \$ invested compared to investments in conventional technologies
- 2. LOW COST CAPITALIZATION BY USING STANDARDIZED CONTRACTS, POOLING AND SERIAL FINANCING
- 3. INCENTIVIZES 'DEEP RETROFIT' CHOICES

创造就业机会的最好最快途径

每一百万投资创造的工作机会是传统技术投资 的四倍

通过使用标准化合约和融资打包达到低成本资金化

吸引深度节能

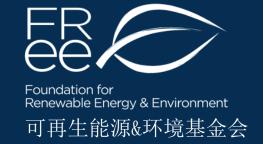
- 4. PARTICIPANTS OWN <u>ALL</u> IMPROVEMENTS & ASSOCIATED BENEFITS
- 5. LOWERS THE COST OF GOVERNMENT IN THE SHORT & LONG RUN
- 6. PROJECT FLEXIBILITY
  - Selection of Conservation Measures (CMs) including actions to save energy, water and materials,
  - Repayment terms customized to meet participant needs.

所有成果和相关利益都归属于公共机构参与者

短期和长期地降低政府参与者成本

项目灵活

- 措施选择多样化(包括节能、节水、节省 材料措施)
- 还款条例根据参与者要求特别定制



A45 5th Avenue New York, NY 10016 www.freefutures.org E: pam@freefutures.org P: 212.705.8758

#### SEF – A MOVEMENT

可持续能源融资——行动进行时



佛蒙特能效署

http://www.efficiencyvermont.com



大辛辛那提能源联盟组织 http://www.greatercea.org/



绿色资本联盟公司

http://www.coalitionforgreencapital.com/



Sonoma County California **SCEF Program** 

加州Sonoma县能效融资项目 http://www.scwa.ca.gov/scef/



特拉华劲量公司

http://www.energizedelaware.org/



康涅狄格清洁能源基金会

http://www.ctcleanenergy.com/



华盛顿地区绿色能源署 http://dcseu.com/index.aspx



俄勒冈能源信托公司 http://energytrust.org/



http://www.bostoncommunitycapital.org/

International applications of the model have been discussed in a special issue of The Bulletin of Science, Technology and Society: http://bst.sagepub.com/content/29/2.toc 更多关于SEU模型在国际的应用请见期刊



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# Innovative Market Based Solutions 基于市场的创新解决方案

Presentation to:

4<sup>th</sup> United States – China Energy Efficiency Forum 第四届美中能源效率论坛



## Sustainable Capital Advisors

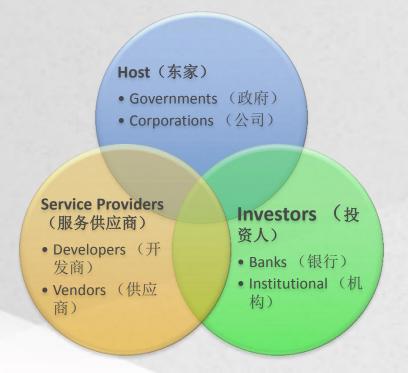
## 可持续能源资本顾问公司

 Sustainable Capital Advisors provides strategy consulting and financial advisory services for clean energy projects.

可持续能源资本顾问公司为清洁能源项目提供战略咨询和财务咨询服务

 SCA represent clients who are primary participants and active on all sides of clean energy projects.

可持续能源资本顾问公司客户包括清洁能源项目的主要和积极参与者





### **Market Based Solutions**

# 基于市场的解决方案

#### What are the primary interests of market participants?

- Hosts: Securing the lowest cost of capital
- Service Providers: Growing business opportunities
- Investors: Identifying a pipeline of future investment

市场参与者的主要利益是什么?

- 东家: 确保资本成本最低
- 服务供应商: 增长业务机会
- 投资人:确定未来投资管道

Collectively, participants are looking for third party financing mechanisms that can provide low cost capital at scale

总的来说,参与者在找寻可以提供大规模低成本资金的第三方融资机制

#### Potential Third Party Financing Mechanisms/ Models

- 1. Vendor Financing
- 2. Leases
- 3. Energy Services Agreements/ Managed Energy Services Agreements
- 4. Sustainable Energy Utility

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### 潜在的第三方融资机制/模式

- 1. 供应商融资
- 2. 租赁
- 3. 能源服务协议/能源管理服务
- 4. 可持续能源公用事业公司模式

### Why The SEU Is a Successful Financing Model

为什么可持续能源公用事业公司模式 (SEU) 是一个成功的融资模式

The SEU model provides participants the opportunity to scale up the energy efficiency market as it develops 可持续能源公用事业公司模式(SEU)为业主提供扩大能效市场的机会

Key Component	Description	主要元素	特征
Aggregation	<ul> <li>SEU aggregated the financing needs of 8 different host which reduced transaction costs and cost of capital</li> </ul>	整合	• 整合8个不同东家的融资需求,降低交易成本和资金成本
Repayment Mechanism/ Security	<ul> <li>SEU participants pledged to make future payments for energy efficiency based in large part from savings guarantee provided by the participating ESCO's</li> </ul>	偿还机制 <b>/</b> 安 全性	• 基于能源服务公司提供的回报 承诺的支付方式
Counterparty	<ul> <li>SEU selected highly rated participants that allowed for the receipt of a AA+ credit rating (S&amp;P)</li> </ul>	合约方	• 经SEU筛选的业主,具有高信用 评级的潜力
Market Access	<ul> <li>SEU structured the inaugural financing to access the \$380 billion/ year tax-exempt bond market to fund capital requirements</li> </ul>	市场准入	• 通过SEU构建的早期融资方式来 准入\$3800 亿/年的免税债券市 场,从而为资本的要求提供资 金
Pipeline	<ul> <li>Standard documentation and successful execution created sustained interest from participants and investors</li> </ul>	管道	• 通过建立标准文档和成功的执行,为业主和投资者创造长期的利益



#### The SEU Model and Other Potential Markets 可持续能源公用事业公司模式(SEU)及其他潜在市场

While the SEU model has been used to finance energy efficiency projects in the US Tax-Exempt market, there is great potential to export components of this model to other markets.

SEU不仅为美国免税市场内的能源效益项目提供资金,同时在其他市场也有巨大的应用潜力。

Key Component	Description	主要元素	特征
Aggregation	While municipalities are natural aggregators, corporations can also aggregate demand for EE	整合	• 企业和政府都可以为能源效率整合需求
Repayment Mechanism/ Security	<ul> <li>In addition to ESCO guarantees, insurance products can be used to guarantee energy efficiency savings</li> </ul>	偿还机制/ 安全性	• 除了通过节能服务公司的担保, 其他的保险产品也能用来担保 能源效益回报
Counterparty	<ul> <li>Seeking hosts with strong credit profiles reduces the need for expensive credit enhancement</li> </ul>	合约方	• 通过寻找值得信赖的东家,减少了对昂贵的信用增级的需求
Market Access	<ul> <li>Instead of focusing on the creation of new asset classes, efforts should be made to continue to use mature markets to fund energy efficiency</li> </ul>	市场准入	• 专注于继续使用成熟市场来为能源效益项目提供资金,而不是依赖于创立新的资产类别
Pipeline	Host-driven energy efficiency project leads to continuous market activity	管道	• 基于东家的能源效益项目为市场灌注了持久的活力



### For More Information

## 欲了解更多信息

If you have questions or need additional information, please contact:

如果您有问题或者需要更多信息,请按下列方法与我们联系:

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